

R E M A R K S

Claims 4 to 6 and 16 to 30 as set forth in Appendix I of this paper are herewith presented for further prosecution. Relative to the version of claims previously before the Examiner, Claims 16, 20, 21, 23, 24 and 30 have been amended as indicated in the listing of the claims.

Accordingly, applicants have revised the wording of Claims 16, 20, 21, 23 and 24 to better bring out that the targeted plants are crop plants,<sup>2)</sup> and have clarified in Claim 30 that the application rate is relative to the amount of seeds.<sup>3)</sup> No new matter has been added. Favorable consideration of the attached is respectfully solicited.

The Examiner reiterated the election/restriction requirement and argued that applicants' previous reasons for requesting traversal were not deemed to be persuasive "*because the compounds encompassed by formula I include different functional groups disclosed in claim 17 are independent and distinct species.*"<sup>4)</sup> The respective approach is deemed to be in error because the Examiner fails to appreciate the claimed invention as a whole as is required in accordance with the provisions governing the restriction of the present application.

The Examiner further relied upon the provisions of 37 C.F.R. §1.141 as allegedly supporting the election/restriction requirement. Applicants' respectfully urge that Rule 141 cannot be deemed to support the Examiner's position. Notably, Rule 141 refers to "distinct and independent inventions" and not to isolated elements thereof. Moreover, under the statute the claims of an application may properly be required to be restricted to one of two or more claimed inventions only

- if the claimed inventions are able to support separate patents and
- if the claimed inventions are either independent or distinct.<sup>5)</sup>

Inventions are independent (i.e., unrelated) if there is no disclosed relationship between the two or more inventions claimed, that is, the claimed inventions are unconnected in design, operation and effect.<sup>6)</sup> It is respectfully urged that the embodiments of applicants' method which are encompassed by the claims are clearly disclosed as being connected in design, in operation, and in effect in that applying effective amounts of a compound (I) together with a herbicidal agrochemical increases the resistance of crop plants to the phytotoxicity of the phytotoxic agrochemical. As such,

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2) Cf., e.g., page 11, indicated lines 26 to 28, of the application.

3) Cf., e.g., page 20, indicated lines 6 to 8, of the application.

4) Office action page 2, lines 17 to 19.

5) Cf. MPEP §803.

6) Cf. MPEP §802.01.I.

the embodiments of applicants' invention which differ in the nature of the particular compound (I) cannot be deemed to represent independent or unrelated inventions.

Moreover, related inventions are distinct if the inventions *as claimed* are not connected in at least one of design, operation, or effect (e.g., can be made by, or used in, a materially different process) and wherein at least one invention is patentable (novel and nonobvious) over the other (though they may each be unpatentable over the prior art).<sup>7)</sup> Again, the subject matter as claimed is clearly connected in design, in operation, and in effect in that the claimed methods require that effective amounts of a certain compound (I) be applied together with a herbicidal agrochemical to increase the resistance of crop plants to the phytotoxicity of the phytotoxic agrochemical. As such, the embodiments of the claimed method which differ in the nature of the compound (I) can also not be deemed to represent distinct inventions. The Examiner will note also that the MPEP points out that *restriction is never proper* where inventions are related as disclosed and are not distinct as claimed.<sup>8)</sup>

In light of the foregoing and the arguments already presented in applicants' previous paper it is therefore respectfully urged that the election/restriction requirement was improper and should be withdrawn. Favorable action is solicited.

The Examiner rejected Claim 30 under 35 U.S.C. § 112, ¶2, arguing that the claim was indefinite for failing to state the basis for the application rate. Applicants' revision of Claim 30 obviates the Examiner's concerns. It is therefore respectfully requested that the rejection be withdrawn. Favorable action is solicited.

Further, the Examiner rejected Claims 6, 16, 17, 19 to 21, 23 to 25 and 27 to 30 under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of *Müller et al.* (US 6,159,992) when taken in view of the disclosure of *von Deyn et al.* (US 2002/025910).

It is respectfully noted that the Examiner's determination of facts in this context suggests a number of errors. For example, the Examiner stated that applicants claim "*a method for increasing the resistance of plants to phytotoxicity, comprising treating the plant, soil or seeds with pyraclostrobin applied with [3-(4,5-dihydroxyisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H-yrazole-4-yl) [sic].*"<sup>9)</sup> More accurately, applicants' claims pertain to a method for increasing the resistance of plants to the phytotoxicity of other crop protection products wherein targets are treated with an effective amount of a compound of formula (I) such as, e.g.,

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7) Cf. MPEP §802.01.II.

8) Cf. MPEP §806.

9) Office action page 4, lines 20 to 23.

pyraclostrobin, together with at least one herbicide such as, e.g., [3-(4,5-dihydroisoxazol-3-yl)-4-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H-pyrazol-4-yl)methanone.

The Examiner further asserted that, according to the *Müller et al.* reference, “[i]t is preferred that further active ingredients are admixed that are herbicidal (column 3, lines 5-10).”<sup>10)</sup> *Müller et al.* disclose particular synergistic fungicidal mixtures comprising two different types of fungicides, one of which falls within the realm of applicants’ compounds (I), and the referenced section of *Müller et al.* reads (*emphasis added*):

*When providing the mixtures, it is preferred to employ the pure active ingredients I and II with which further active ingredients against harmful fungi or against other pests such as insects, arachnids or nematodes, or else herbicidally active ingredients, growth regulators or fertilizers, may be admixed.*

As such, *Müller et al.* merely contemplate the possibility that further active ingredients such as fungicides, insecticides, arachnicides or nematocides, or else herbicides, growth regulators or fertilizers, may be admixed, whereas preference is given to employing the pure active ingredients (I) and (II).

With respect to the teaching of *von Deyn et al.* the Examiner stated: “To widen the spectrum of action and to achieve synergy the 3-heterocyclyl-substituted benzoyl derivatives can be mixed and applied to other herbicides or growth-regulatory active ingredients (column 126, lines 60-64). However, it is advantageous to combine the compounds with additional crop protection agents, including those used for controlling phytopathogenic fungi with non-phytotoxic oils (column 127, lines 20-29).”<sup>11)</sup> The disclosure of *von Deyn et al.* addresses herbicidal 3-heterocyclyl-substituted benzoyl derivatives which fall within the realm of the herbicide referenced in applicants’ claims, and the reference states in the section referenced in the first part of the Examiner’s comment that the herbicidal 3-heterocyclyl-substituted benzoyl derivatives can be admixed with other groups of herbicidally or growth-regulatory active ingredients to widen the spectrum of action and to achieve synergistic effects. The section of *von Deyn et al.* which is referenced in the second part of the Examiner’s comment reads (*emphasis added*):

*Moreover, it may be advantageous to apply the ... [3-heterocyclyl-substituted benzoyl derivatives], alone or in combination with other herbicides, in the form of a mixture with addi-*

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10) Office action page 5, lines 7 and 8.

11) Office action page 6, lines 1 to 6.

tional other crop protection agents, for example with pesticides or agents for controlling phytopathogenic fungi or bacteria. Also of interest is the miscibility with mineral salt solutions which are employed for treating nutritional and trace element deficiencies. Non-phyto-toxic oils and oil concentrates can also be added.

Accordingly, the reference does not postulate that it is advantageous to include pesticides, fungicides, fertilizers and/or non-phytotoxic oils and oil concentrates as the Examiner would have it. It is merely stated that doing so may be advantageous. However, neither the respective section of the reference nor any other part thereof points in the direction of any particular advantage which may arise from combining the 3-heterocyclyl-substituted benzoyl derivatives with one of the additional crop protection agents.

The teaching of *Müller et al.* and the disclosure of *von Deyn et al.*, at best, corroborate that a certain mixture of fungicides and particular herbicides may be admixed with, or may be applied in the form of a mixture with, other crop protection agents. Additionally, the disclosure of *von Deyn et al.* hints that the application of the particular herbicides in form of an admixture with other crop protection agents may be advantageous. Notably however, *von Deyn et al.* give no indication as to the nature of any advantage which might result from any such combination, and the reference is also silent as to which circumstances or parameters are critical to achieve any such advantage. Also, the disclosure of *von Deyn et al.* contains nothing which reasonably could have prompted a person of ordinary skill to specifically select a compound corresponding to applicants' formula (I) from the vast number of "other crop protection agents" for admixture with the 3-heterocyclyl substituted benzoyl derivatives.

Applicants' claims are not merely drawn to an admixture of a fungicide corresponding to one of the components of *Müller et al.*'s synergistic mixture with a herbicide corresponding to the 3-heterocyclyl-substituted benzoyl derivatives of *von Deyn et al.* Rather, applicants' claims pertain to a method in which such ingredients are applied such as to increase the resistance of crop plants to the phytotoxicity of crop protection products. It is well settled that not only the materials which are used and the nature of the specific process which is employed but also the particular result which is obtained must be considered when determining whether a claimed method is obvious within the meaning of Section 103.<sup>12)</sup> The respective approach is, in fact, supported by the rationales which may support a conclusion of obviousness which were identified by the Supreme Court in *KSR International Co. v. Teleflex Inc.* (KSR), 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385,

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12) *In re Dillon*, 919 F.2d 688, 695, 16 USPQ2d 1897, 1903 (Fed. Cir. 1990) (*en banc*), *cert. denied*, 500 U.S. 904 (1991).

1395-97 (2007). Accordingly, a conclusion of obviousness may be supported if the claimed invention combines prior art elements according to known methods to yield predictable results.<sup>13)</sup> However, as shown in the foregoing, neither the teaching of *Müller et al.* nor the disclosure of *von Deyn et al.*, taken separately or in combination with one another, is reasonably suited to suggest or imply the possibility of increasing the resistance of crop plants to the phytotoxicity of crop protection products by selecting the specific agents which are required in applicants' claims and by implementing applicants' method. The particular result which is achieved by applicants' method is, therefore, clearly not a predictable result, and under the rationale identified by the Supreme Court in *KSR*, the references therefore cannot support a conclusion of obviousness.

The Examiner took the position that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of *Muller et al.* [sic] and *Deyn et al.* [sic] to utilize a combination of pyraclostrobin and [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H-yrazole-4-yl [sic],”<sup>14)</sup> and that “[o]ne would have been motivated to combine the two ingredients because *Deyn et al.* [sic] teach that [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H-yrazole-4-yl [sic] is advantageously combined with fungicides and that non-phytotoxicity is important in formulating the end product.”<sup>15)</sup> Again, *von Deyn et al.* merely state that it may be advantageous to admix the 3-heterocyclyl substituted benzoyl derivatives with further crop protection agents without, however, suggesting or implying that advantages will result, which advantages may occur, or which type of other crop protection agent other than herbicides and growth regulators may be likely to yield advantageous results. The disclosure of *von Deyn et al.* is also not deemed to corroborate that non-phytotoxicity is important in formulating the end product. It is merely stated that non-phytotoxic oils and oil concentrates may be added to application forms of the 3-heterocyclyl substituted benzoyl derivatives. It should be borne in mind that the benzoyl derivatives of *von Deyn et al.* are herbicides and are, as such, intended to exhibit phytotoxicity against undesired plants. What is important in formulating the end product is, therefore, not that the product be non-phytotoxic. Rather, it is important and desirable that the phytotoxic action be directed selectively at undesired plants and that the herbicide be well tolerated by crop plants. Notably, neither the disclosure of *von Deyn et al.* nor the teaching of *Müller et al.* contain any information which pertains to parameters which may be suited to improve the selectivity of the

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13) MPEP §2143.

14) Office action page 6, lines 9 to 12.

15) Office action page 6, lines 12 to 16.

herbicides of *von Deyn et al.*, or to increase the resistance of crop plants to phytotoxic effects of crop protection products.

The Examiner also asserted “*Muller et al. [sic] teach that pyraclostrobin is preferably applied with other ingredients that are herbicidally active. Hence, one of ordinary skill [sic] in the art would have been lead [sic] to combined [sic] pyraclostrobin with [3-(4,5-dihydroisoxazole-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1 H-yrazole-4-yl [sic] in order to achieve a composition which reduces phytotoxicity and has dual action as an herbicide and a fungicide.*” Again, *Müller et al.* merely mention that the synergistic mixture of fungicides may be admixed with further active ingredients, but points out that it is preferred to employ the pure ingredients (I) and (II) of their mixture. Moreover, where the combination of the synergistic mixture with further active ingredients is concerned, *Müller et al.* contains nothing which may be deemed to direct the attention of a person of ordinary skill specifically to the herbicides which are mentioned together with fungicides, insecticides, arachnicides, nematocides, growth regulators and fertilizers. As such, a person of ordinary skill would not have been led to make the particular combination as the Examiner would have it. A person of ordinary skill in the pertinent art would not necessarily have selected the herbicides for a combination, if any, with the synergistic mixture of *Müller et al.*, or with the component of *Müller et al.*’s mixture which corresponds to applicants’ formula (I). Additionally, while a person of ordinary skill in the pertinent art may have had reasons to expect that combining the synergistic mixture of *Müller et al.* with a herbicide could yield in a combination having herbicidal and fungicidal action, such a person certainly could not reasonably expect that applying the synergistic mixture of *Müller et al.*, or the component of *Müller et al.*’s mixture which corresponds to applicants’ formula (I), together with a herbicide would increase the resistance of crop plants to the phytotoxicity of other crop protection products.

The discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art’s functioning, does not render the old composition patentably new to the discoverer,<sup>16)</sup> and claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable.<sup>17)</sup> However, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.<sup>18)</sup> “*To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing*

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16) *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999).

17) *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

18) *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

*described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*”<sup>19)</sup> Obviousness cannot be predicated on what is not known at the time an invention is made, even if the inherency of a certain feature is later established.<sup>20)</sup>

In light of the foregoing it is respectfully urged that the Examiner erred finding that the subject matter of applicants’ claims was unpatentable under Section 103(a) in light of the teaching of *Müller et al.* when taken in view of the disclosure of *con Deyn et al.* Favorable reconsideration of the Examiner’s position and withdrawal of the rejection is therefore respectfully solicited.

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19) *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950–51 (Fed. Cir. 1999) (citations omitted).

20) *In re Rijckaert*, 9 F.2d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993).